

Environmental Regulatory Guidance

for

***Concentrated Animal Feeding Operations
(with emphasis on Large Dairy Operations)***



Kansas Department of Health and Environment
1000 SW Jackson Street
Topeka, Kansas 66612

Environmental Regulatory Guidance

for

Concentrated Animal Feeding Operations

(with emphasis on large dairy operations)

This guidance document has been developed to help the owners and operators of Concentrated Animal Feeding Operations (CAFO) in determining what permits may be necessary to operate a CAFO in Kansas. It is a first step in the process, not a substitute for specific questions, application procedures, or personal visits. The guidance addresses only those requirements of the Kansas Department of Health and Environment (KDHE) Division of Environment. Other local, state, and federal agencies may have fee, registration, permit or inspection requirements; please contact them directly for additional information.



The Division of Environment

The fate of our Kansas environment is determined by what we all do today. In entering the 21st century, "prevention" may be the key to maintaining and improving our quality of life. "An ounce of prevention is worth a pound of cure" is as true now as it was a hundred years ago. Today, wherever possible, the Division of Environment is focusing on prevention of pollution as a cheaper and more effective way of improving our environment. KDHE provides educational programs, information and incentives for businesses to reduce pollution and is fostering a "partnership" attitude. The Division is striving to provide quality services in a spirit of cooperation in this important task: improving our state's environment - our air, water, land - for our children and us.

The Division of Environment has statutory authority to regulate many activities that may affect the environment and consists of five bureaus. Four of the bureaus are organized into media specific program areas. The bureaus are Water, Air and Radiation, Waste Management, and Environmental Remediation. The fifth bureau, the Bureau of Environmental Field Services, provides field and support services for the Division. The Pollution Prevention and Small Business Assistance programs are within the Bureau of Environmental Field Services.

This guidance provides those individuals planning to construct or expand a CAFO with an overview of environmental permits, and registrations necessary for CAFOs in the State of Kansas. This document will not answer individual problems or address all situations. The owner or operator should contact KDHE for additional information and applications.



As previously mentioned, this guidance document focuses on large dairy CAFOs. If you need assistance with a different type or size of CAFO, please contact KDHE.

Can I simply purchase land and plan to operate a CAFO?

No. You would not awake one day and on a whim go out and start buying dairy cattle. Instead you would initially consider the equipment and buildings necessary, the sources of feed, how to deliver the milk to market, etc. Management of the wastes from the dairy should be included in the initial stages of your planning to ensure a trouble free and rapid start up of your dairy.

Because each dairy often has a discharge of waste on a daily basis due to the clean up of the milking parlor and equipment, **nearly all dairies in Kansas will require a water pollution control permit (permit)**. In Kansas there are three primary items to consider in the planning stages to ensure that the dairy can be permitted. These three considerations are:

1. Size of the dairy;
2. Locations of habitable structures (homes, churches, offices, etc.) and;
3. Measures to prevent pollution of the environment.

KDHE, for the state of Kansas, issues two types of permits; a state permit, and a combined state and federal permit. Generally dairies with fewer than 700 cows will need a state permit. Dairies with 700 cows or more will need a combined state and federal permit. In any instance, KDHE will issue the permit, even if it is a combined state and federal permit. The requirements, though similar, are different.

Laws in Kansas require CAFOs to stay specific distances (termed a separation distance) away from habitable structures. Dairies with fewer than 200 cows are not required by law to have a separation distance. Dairies with more than 200 but fewer than 700 cows are required to maintain a separation distance of at least one quarter mile. Larger dairies are required to maintain a separation distance of at least 4,000 feet. An exception to the law is when the owner of a habitable structure waives their statutory right to the specified separation distance, through an agreement recorded with the county register of deeds.

Measures to prevent pollution should also be considered when planning a dairy. Some of the considerations include:

- Locate away from streams and lakes.
- Locate on high ground away from groundwater.
- Locate away from sandy soils.
- How will the waste be collected and stored?
- How will I construct the storage lagoon or pond to minimize leaks?
- Is there sufficient nearby cropland where the wastes can be applied as crop nutrients?
- Are the land application sites away from streams, lakes, and groundwater?
- What type of equipment will I need to land apply the wastes?
- etc.

Once I have found a good location for my CAFO, what do I need to do?

If your dairy will be for 200 or more cows, you must register your facility and possibly apply for a permit from the Bureau of Water. Your permit will require you to meet certain conditions for the location and operation of your concentrated feeding and land application areas.

As noted above, thorough planning will speed the start up of your facility. The site appraisal described below, involves many of the same considerations previously noted. Therefore, KDHE highly recommends you contact the agency early in the planning stages. KDHE can help businesses, in a confidential manner, to gather information regarding potential sites for a dairy facility.

What is involved in the KDHE permitting process?

There are five steps in the permitting process: 1. Registration, 2. Site Appraisal, 3. Permit Application, 4. Application Review and Approval, 5. Public Notice of Draft Permit and Reaching a Final Decision.

Registration

If your CAFO has a capacity of 300 or more animal units, you must register the facility with KDHE. A \$25 registration fee is required. **Facilities with daily discharges of wastewater, such as dairy parlors, are also required to register regardless of the dairy size.**

Site Appraisal

Upon receipt of the registration, KDHE will schedule a site visit to determine the suitability of the site. If KDHE determines that no significant water pollution potential exists and there are no issues with separation distances from habitable structures, KDHE may certify that no permit is required.

Permit Application

If a permit is required, the CAFO must submit a permit application to KDHE and pay the applicable permit fee. The permit fee is based on animal units as shown in the following table:

<u>Animal Units</u>	<u>Annual Permit Fee</u>	<u>Mature Dairy Cows</u>
0 - 999	\$25	0 - 699
1,000 - 4,999	\$100	700 - 3,570
5,000 - 9,999	\$200	3,571 - 7,142
10,000 or more	\$400	7,143 or more

CAFOs required to obtain a permit will be given a permit application to be completed and returned with detailed plans of the layout and construction details of the proposed CAFO or dairy. For required design standards for a CAFO, please refer to the KDHE publication "Design Standards for Confined Livestock Feeding Operations." Included in the design standards is an important requirement on depth to groundwater. **The facility must show proof of a groundwater investigation or information research that indicates the depth to groundwater is 10 feet or more below all structures.**

Assistance in developing detailed plans is often available through the County Office of the Natural Resources Conservation Service, the local County Conservation District, or consultants. The permit application requests the facility to provide or develop specific information such as:

- Number, sizes, and types of animals to be fed.
- Description of how process wastes (wastewater, manure, dead animals, parlor wash down, etc.) will be managed to prevent water pollution.
- Facility site maps and detailed drawings of the layout and facilities (buildings, collection pipes and channels, waste storage lagoons, land application areas, etc.) to be developed, constructed, or used.
- Aerial photographs of the site and maps or tables showing distances to habitable structures.
- Maps showing nearby streams, lakes, drainage ways, water and oil and gas wells, buffer areas between land application fields and drainage ways, etc.
- Written description of how you determined what sizes of waste controls and land application areas were necessary.
- Copies of any separation distance waivers or agreements signed by any nearby habitable structure owners.
- Construction drawings.
- Design calculations.
- Mailing lists of land owners and habitable structure owners within one mile of the facility and the address of the nearest post office.

Prior to issuance of the permit, the facility can build or construct at its own risk, but cannot populate or use the facility until the permit is issued.

Application Review and Approval

KDHE reviews the permit application and accompanying materials and compares it against requirements in statutes and regulations. KDHE and the owner or their consultant work together to ensure all requirements have been met or addressed in the permit application. This process may take some time depending on how much information is included in the permit application. Each permit application is reviewed in the order it is received. KDHE will review other permit applications when waiting on additional information from the permit applicant.

When all the information necessary to show the plans and facility will meet requirements has been received, KDHE will approve the permit application and accompanying materials. In addition KDHE will prepare a draft permit.

Sometimes the design of the facility may not meet the specific requirement of a regulation. The permit applicant can request a variance from the specific requirement by explaining what other actions or steps will be taken to meet the intent of the regulation.

Public Notice of Draft Permit and Reaching Final Decision

As noted above, a draft permit is prepared by KDHE. At this point in the process, KDHE is essentially saying that, based on the information available, the permit application meets all applicable water pollution control requirements. KDHE mails a notice to the land owners and habitable structure owners within one mile of the facility. In addition, the general public is notified of the draft permit through the *Kansas Register*. Those notified, as well as any other interested individuals, have 30 days to give KDHE any comments or information they believe should be considered before KDHE makes a final decision.

KDHE reviews and evaluates the new information, if any, developed through the public notice process to determine if the permit application demonstrates all water pollution control requirements will be met. If the permit application still meets statutes and regulations in light of any new information, then KDHE will reach a final decision to issue the permit. If the new information indicates the permit application does not address all applicable water pollution control regulations and laws, then KDHE will notify the owner of the deficiencies. The owner then decides whether or not they will make changes and continue to try to obtain a permit.

The permit, when issued, can be for a term of up to five years. The owner must apply for renewal of the permit unless the facility has closed and no longer has any wastes on site.

Is there anything I have to do after my permit is issued?

Yes. It is extremely important for you to read your permit and make sure you understand it. If you do not understand it, you should contact KDHE. You can expect your permit and the regulations to require you to:

- ✓ Implement a nutrient management plan by December 2006 (for dairies with 700 or more cows).
- ✓ Keep records and submit annual reports to KDHE.
- ✓ Keep your permit current until you completely close your operation and remove all manure and wastewater.
- ✓ Manage the facility wastes in a manner to prevent water pollution.

Will I ever be inspected?

Yes. KDHE will inspect your facility to verify that you are operating in compliance with your permit requirements. Follow-up inspections may be conducted to ensure you make any necessary changes.

Summary

Planning to minimize the potential for pollution should be part of your overall initial planning for your CAFO or dairy. The size of the dairy, the location of habitable structures, and the site location and conditions are very important considerations in planning an operation that can readily be permitted. In addition, a registration and permit application with complete information and sufficient details will ensure the public understands what to expect and how the facility owner is minimizing the potential for water pollution from the facility.

Additional Permits

Dairy Facility Permitting through the Kansas Department of Agriculture

The Dairy Inspection Program of the Kansas Department of Agriculture issues a permit to each dairy farm that sells raw milk in the state of Kansas. New dairies are strongly encouraged to contact the inspections program early in their planning and construction phases. Detailed plans of the milking facility and cattle housing areas must be submitted KDA for approval. A KDA dairy inspector will make several preliminary inspections and meet with you to discuss such issues as facility construction, water systems, waste disposal systems and milk equipment approval prior to issuing the permit. Following issuance of the permit, dairy farm inspections are completed on each farm several times each year to ensure compliance with the Grade A Pasteurized Milk Ordinance requirements. Applications for the permit and a summary of the basic dairy farm requirements are available on the web at <http://www.ks-agr.org:83/Default.aspx?tabid=48> or by contacting the program at (785) 296-3511.

Water Permitting through KDA's Division of Water Resources

The state of Kansas requires a permit for water used to water livestock (stockwatering). Stockwatering is the watering of livestock and other uses of water directly related to the operation of a feedlot with the capacity to confine 1,000 or more head of cattle, or any other confined livestock operation or dairy that would divert 15 or more acre-feet of water per calendar year. Additional permitting may be required for the use of water associated with construction and lagoon pre-fill. For more information from the water appropriations program, visit the web at <http://www.ksda.gov>, call (785) 296-3717, or write the Kansas Department of Agriculture's Division of Water Resources, 109 SW 9th, Topeka, KS 66612-1283.

Contacts:

Kansas Department of Health and Environment
Bureau of Water
Livestock Waste Management Section
1000 SW Jackson St., Suite 420
Topeka, KS 66612-1367
785-296-6432
785-296-5509 (fax)
Website: www.kdhe.state.us.us/feedlots

USDA, Natural Resources Conservation Service (NRCS) (State Office)
760 South Broadway
Salina, KS 67401
785-823-4500
785-823-4540 (fax)
For information on the NRCS service center in your area, go to the following website and click on "Find a service center."
<http://www.ks.nrcs.usda.gov/>

Kansas Department of Agriculture
Dairy Inspection Program
109 SW 9th Street
Topeka, KS 66612
785-296-3511
785-296-0673 (fax)
<http://www.ks-agr.org:83/Default.aspx?tabid=48>

Kansas Department of Agriculture
Division of Water Resources
109 SW 9th Street
Topeka, KS 66612-1283
785-296-3717
<http://www.ksda.gov>

KDHE District Offices

Northeast
800 W 24th Street
Lawrence, KS 66046
785-842-4600

Southeast
1500 W 7th Street
Chanute, KS 66720
620-431-2390

North Central
2501 Market Place, Ste D & E
Salina, KS 67401
785-827-9639

South Central
130 S Market, 6th Floor
Wichita, KS 67202
316-337-6020

Northwest
2301 E 13th
Hays, KS 67601
785-625-5664

Southwest
302 W McArtor Rd
Dodge City, KS 67801
620-225-0596

Ulysses Satellite
325 1/2 W Oklahoma Terr
Ulysses, KS 67880
620-356-1075

Consultants that design livestock waste control systems		
Agricultural Engineering Associates**	1000 Promontory Dr. - P. O. Box 4 Uniontown, KS 66779	620.756.1000 620.756.4600 (Fax)
Agri-Waste Technology, AWT**	5400 Etta Burke Ct. Raleigh, NC 27606	919.859.0669 919.233.1970 (Fax)
B G Consultants, PA**	2508 W. 15th Emporia, KS 66801	620.343.7842 620.343.7844 (Fax)
Bluestem Environmental Engineering, Inc.**	35737 W. 287th St. Paola, KS 66071	913.294.9393 913.294.9043 (Fax)
Certified Engineering Design** Harlan Foraker, P.E.	810 W. Douglas Wichita, KS 67203	316.262.8808 316.262.1669 (Fax)
Cohorst Engineering and Surveying Steven J. Cohorst, P.E.	1102 Broadway Marysville, KS 66508	(785) 562-2244 (785) 562-5148 (Fax)
Engineering Technologies** John Herman	100 Military Plaza, Suite 106 Dodge City, KS 67801	620.227.2097
Environmental Management Resources, Inc.**	1400 Kassold, Suite B Lawrence, KS 66049	785.842.9013 785.842.3863 (Fax)
Henry, Chris MS, PE**	2152 230 th Robinson, KS 66532	402.465.5262 or 785.544.7726
Jantz Excavating Inc.**	Feedyard Design 26503 #11 Rd. Montezuma, KS 67867	620.846.2634 620.846.2322 (Fax)
King & Associates Engineering**	125 W. 4th Holton, KS 66436	785.364.4312 or 3408 785.364.4744 (Fax)
KLA Environmental Services**	1700 E. Iron Ave. Salina, KS 67401	785.823.0097 785.823.3724 (Fax)
KLA Environmental Services**	6031 SW 37 th St. Topeka, KS 66614-5129	785.273.5115 785.273.3391 (Fax)
Konza Natural Resources Consultants, Inc.**	909 E. Wayne Salina, KS 67401	785.825.6631 or 800.864.4435 785.825.0259 (Fax)
Muetting Engineering & Surveying**	612 Community Dr. Seneca, KS 66538	785.336.6044 785.336.6047 (Fax)
Murrison Environmental Mgmt** Scott Murrison	403 North 5 th Garden City, KS 67846	620.275.9261 620.260.6682 (Cell)
Sustainable Environmental Solutions**	8208 Melrose Dr., Suite 105 Lenexa, KS 66215	913.307.0057 913.307.0059 (Fax)
Taylor & Associates, Inc.**	509 N. 6th Garden City, KS 67846	620.276.2356 620.276.2037 (Fax)
Terracon**	111 N. Main - P. O. Box 1306 Syracuse, KS 67878	620.384.7788 620.384.5379 (Fax)
Zerr Engineering**	P. O. Box 889 Colby, KS 67701-0889	785.462.6992